

## ABSTRACT

A method of fabricating a poly-crystal ITO thin film is provided. First, an amorphous ITO thin film is formed on a substrate. Then, a rapid thermal annealing process is performed to transform the amorphous ITO thin film into a poly-crystal ITO thin film. A method of fabricating a poly-crystal ITO electrode is further provided. First, an amorphous ITO thin film is formed on a TFT array substrate. Then, the amorphous ITO thin film is patterned to form a plurality of amorphous ITO electrodes. A rapid thermal annealing process is performed to transform the amorphous ITO electrodes into a plurality of poly-crystal ITO electrodes. A poly-crystal ITO thin film with improved planarity is formed. Processing time is reduced and throughput of the process is then improved.